

## **AMENDMENTS TO THE SPECIFICATION**

**Amend the specification by adding before the first line the sentence:**

This is a New US National Stage Patent Application filed January 10, 2005.

**Please replace the paragraph 2, line 14, page 25 with the following amended paragraph:**

As the calculation method of the similarity  $D_i(S_{0j}, S_{ij})$  of the matching result, normalized correlation, rank\_correlation, or the like can be used. The rank correlation is correlation of candidate precedence of the matching result. Denoting the candidate precedence of the matching result  $S_{0j}$  of the input image by  $A_{0j}$ , it follows that  $A_{0,2} = 1$ ,  $A_{0,6} = 2$  and  $A_{0,3} = 3$  in the case of the matching result shown in FIG. 7. Denoting candidate precedence of the matching result  $S_{ij}$  of each of the reference images by  $A_{ij}$ , for example, the Spearman's rank correlation can be obtained according to the expression  $1 - 6 \sum_j (A_{0j} - A_{ij})^2 / \{N(N^2 - 1)\}$ .

**Paragraph 2, lines 15 and 19 page 36. with the following amended paragraph:**

It is supposed that an input image  $I(u, v)$  as shown in FIG. 6 is obtained by the image input section 10 at the time of matching of the input image (step 100 in FIG. ~~46~~ 17). According to the same processing as the operation in the first embodiment,  $R_1$ ,  $R_5$  and  $R_2$  are obtained in the cited order as reference images having a high possibility of being an image of the same object as the input image as shown in FIG. 8 by the image generation section 30, the image matching section 40, ~~the result matching section 60~~, and the result matching section 60 (steps 101, 102 and 103).

**Paragraph 1 and 2, page 37 lines 3 and 12 with the following amended paragraph:**  
obtained from the image input section 10 (step 111). The generation of the comparison images  $H_{jk}(u, v)$  is conducted by using a method similar to the step ~~S101~~ 101. In other words, the

second image generation section 31 generates  $L$  comparison images  $H_{jk}(u, v)$  ( $j = 1, 5, 2, k = 1, \dots, L$ ) which are close in input condition such as the pose and illumination to the input image, with respect to the reference three-dimensional object models  $B_j$  ( $j = 1, 5, 2$ ) in the reference three-dimensional object model storage section 21. The second image matching section 41 finds a similarity  $S(I, H_{jk})$  between the input image  $I(u, v)$  and each comparison image  $H_{jk}(u, v)$ , and finds a maximum similarity  $S_{0j} = \max_k S(I, H_{jk})$  every model (step 112).

The matching results become, for example, as shown in FIG. 19. If  $S_{05 \underline{0.5}} > S_{01 \underline{0.1}} > S_{02 \underline{0.2}}$ , then  $R_5$ ,  $R_1$  and  $R_2$  are obtained in the cited order as reference images having a high possibility of being an image of the same object as the input image. Finally, the reference images having high similarities are displayed (step 104).

**Paragraph 2, line 14, page 42 with the following amended paragraph:**

It is supposed that an input image  $I(u, v)$  as shown in FIG. 6 is obtained by the image input section 10 at the time of matching of the input image (step 100 in ~~FIG. 16~~ FIG. 17). According to the same processing as the operation in the first embodiment,  $R_1$ ,  $R_5$  and  $R_2$  are obtained in the cited order as reference images having a high possibility of being an image of the same object as the input image as shown in FIG. 8 by the image generation section 30, the image matching section 40, and the result matching section 60 (steps 101, 102 and 103).

**Paragraph 2, line 10, page 46 with the following amended paragraph:**

The partial image matching section 45 conducts comparison on the partial images of the converted input image and reference image obtained from the image conversion section 36, and

calculates the similarity. The similarity calculation is conducted in the same way as the step ~~S102~~102.

**Paragraph 1, line 3, page 72 with the following amended paragraph:**

an image matching step of calculating a similarity between the input image and each of the comparison images generated at the image generation-~~means~~ step, selecting a maximum similarity with respect to comparison images associated with each representative three-dimensional object model, and regarding the maximum similarity as a similarity between the input image and the representative three-dimensional object model;